CLAIMS

What is claimed is:

1. A fusing roller used with an image forming apparatus, comprising:

a roller body;

a heating coil mounted within the roller body and generating a resistance heat when power is supplied thereto; and

a terminal block connected to the heating coil to supply an external power to the heating coil,

wherein the heating coil is wound and welded at one side of the terminal block.

2. The fusing roller according to claim 1, wherein the heating coil is connected to the terminal block by laser welding.

3. The fusing roller according to claim 2, wherein the heating coil is connected to the terminal block by two-sided spot welding.

4. The fusing roller according to claim 1, wherein the terminal block comprises a partial slit at one side thereof to form a particular size of a slit section and the heating coil is wound and welded around the partial slit.

5. A fusing roller used with an image forming apparatus, comprising:

a heating pipe;

an expandable pipe mounted within the heating pipe;

a heating coil interposed between the heating pipe and the expandable pipe and generating a resistance heat when power is supplied thereto;

a terminal block connected to the heating coil to supply an external power to the heating coil;

an outer insulator interposed between the heating pipe and the heating coil; and

an inner insulator interposed between the expandable pipe and the heating coil,

wherein the heating coil is wound and welded at one side of the terminal block.

6. The fusing roller according to claim 5, wherein the heating coil is connected to the terminal block by laser welding.

7. The fusing roller according to claim 6, wherein the heating coil is connected to the terminal block by two-sided spot welding.

8. The fusing roller according to claim 5, wherein said terminal block comprises a partial slit at one side thereof to form a particular size of a slit section and the heating coil is wound and welded around the partial slit.

9. A fusing roller used with an image forming apparatus, comprising:

a heating pipe with a Teflon coating applied on the outer surface thereof;

an expandable pipe mounted within the heating pipe;

a heating coil interposed between the heating pipe and the expandable pipe and generating a resistance heat when power is supplied thereto;

first and second terminal blocks connected to two respective ends of the heating coil to supply an external power to the heating coil;

a gear cap and an end cap provided at two respective ends of the heating pipe;

an outer insulator interposed between the heating pipe and the heating coil;

an inner insulator interposed between the expandable pipe and the heating coil; and

first and second electrodes provided respectively at the gear cap and the end cap to be electrically connected to the first and second terminal blocks,

wherein each end of the heating coil is wound and welded at one side of each of the first and second terminal blocks.

10. The fusing roller according to claim 9, wherein the two ends of the heating coil are connected respectively to the first and second terminal blocks by laser welding.

11. The fusing roller according to claim 10, wherein the two ends of the heating coil are connected respectively to the first and second terminal blocks by two-sided spot welding.

12. The fusing roller according to claim 9, wherein one side of each of the terminal blocks is partially slit to form a particular size of a slit section and each end of the heating coil is wound and welded around the slit section.

13. A fusing roller comprising:

a fusing roller body;

a heating coil mounted within the fusing roller body to generate a resistance heat when applying a power thereto; and

a connecting member to apply power to the heating coil, the connecting member being connected to the heating coil by spot welding.

14. The fusing roller according to claim 13, wherein the connecting member comprises a slit therein such that the heating coil is wound around the slit and welded to the connecting member via two-sided spot welding.

15. A fusing roller comprising:

a fusing roller body;

a heating coil mounted within the fusing roller body to generate a resistance heat when applying a power thereto; and

a connecting member to apply power to the heating coil, the connecting member having a partial slit therein in which a portion of the heating coil is wound around the connecting member through the slit to secure the heating coil to the connecting member.

16. The fusing roller according to claim 15, wherein the portion of the heating coil wound within the slit of the connecting member is welded at one side of the connecting member.

17. The fusing roller according to claim 15, wherein the portion of the heating coil wound within the slit of the connecting member is welded to the connecting member at two sides thereof.

18. A fusing roller comprising:

a fusing roller body;

a heating coil mounted within the fusing roller body to generate a resistance heat when a power is applied to the heating coil; and

a connecting member having and end section and a slit section, which is flexable with respect to the end section, the slit section being connected to the heating coil.

19. The fusing roller according to claim 18, wherein the connecting member comprises a partial slit formed between the end section and the slit section.

20. The fusing roller according to calim 19, wherein one end of the heating coil is iserted into the partial slit to be connected to the slit section of the connection member.

21. The fusing roller according to claim 20, wherein the connecting member comprises a main section coupled between the slit section and an external power connector.

22. The fusing roller according to claim 21, wherein the end section and the slit section are spaced apart from each other by a width of the slit formed between the end section and the slit section.

23. The fusing roller according to claim 21, wherein the heating coil is welded on the slit section.